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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,865	07/14/2003	Noboru Masuda	33216M0381	3830

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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,865

Applicant(s)

MASUDA ET AL.

Examiner

Frederick J. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24, 25 and 31-48 is/are pending in the application.
- 4a) Of the above claim(s) 24, 25, 31-33, 36, 37 and 39-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34, 35 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/498,749.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 34,35,38 in the reply filed on 12-09-04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The Applicants were correct in pointing out previously canceled claims 26-30 on the OA Summary was an inadvertent error and were equally correct in pointing out those claims were not listed among the restricted groups. The Examiner apologizes for the confusion caused by the error.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/498749, filed on 2/7/2000.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Objections

4. Claims 34,38 are objected to because of the following informalities: -Claim 34, line 7 one or more words are missing after “least”; - Claim 38, line 9, “which compose said intermittent means” is unclear in context. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 34 is vague and indefinite because on line 7 it is unclear how “the nozzle” is fed “to said nozzle”; for examination, “the nozzle” will be assumed to be “the paint”.

7. “Intermittent means which repeats feeding and stopping” of paint is interpreted under 35 USC 112/ 6th as intermittent means 100 which is a valve per page 10, lines 10-20 and elsewhere.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 34,35 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Iwashita et al US 5989622.

Iwashita teaches a method for intermittent coating of a base web material, the apparatus comprising a coater 20 with nozzle having a slit which applies paint or coating liquid to the base, and valve means 23 which selectively feeds coating material either to the coater or back to tank 27 (during which paint is stopped to the nozzle). (col. 4, 36-65; col. 5, 55; fig. 1).

The valve means allows coating material to be fed alternately to the nozzle for application or to the tank, to carry out the intermittent coating (col. 3, 1-45), and thereby having a start time and stop time to produce the intermittent coatings as in figures 8.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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12. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwashita et al.

Iwashita et al is cited for the same reasons previously discussed, which are incorporated herein. Valves are independently controlled by a controller to allow selective opening and closing. Dual two-way valves are not cited. However, figure 1 depicts the entire apparatus, including depicting two lines 26, 31 circulating coating material from the coater back to the supply tank 27. Line 26 is joined to the 3-way valve whereas line 31 is connected to 2-way valve 28. Since 26,31 are redundant, it is the Examiner's position that it would have been an obvious design variation to eliminate line 26 and replace its function with line 31, thereby necessitating a 2-way valve for valve 23, thereby permitting a feed valve for feeding coating material to the coater, and a return valve for circulating coating material from the coater back to the tank 27 because the variation would have caused intermittent coating.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Iwashita by substituting the function of line 26 with 31, thereby simplifying the apparatus and substituting a 2-way valve for 3-way valve 23 to provide an equivalent method for intermittent coating.

13. Claims 34,35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milbourn et al et al US 5360629 in view of Watanabe et al US 5536313.

Milbourn teaches intermittently applying coating liquid patches onto a base (web) material, the apparatus comprising an extrusion coater 18 with nozzle end having an opening which applies the coating liquid to the base, and valve means 26 which selectively feeds coating material either to the coater 18 or back to reservoir 24 (during which paint is stopped to the nozzle). The valve

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means allows coating material to be fed alternately to the nozzle for application or to be returned to the reservoir to carry out the intermittent coating (col. 2, 58-62; col. 3, 35- col. 4, 22), having a start time and stop time to produce the intermittent coatings 12 as in figure 1. While liquid coating materials containing solvents are cited on col. 6, 27-30, and coating liquid materials are not limited by the reference, paint is not taught.

Watanabe et al also teaches an intermittent liquid coating process using a similar extrusion coater and nozzle which applied the intermittent coatings to similar base (web) members 16, in which it is taught on col. 3, 51-53 that the coatings applied are of paint. Given the similarity of the coating process and coaters, it would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the intermittent liquid coating method of Milbourn using paint as the intermittent coating liquid as taught by Watanabe et al because of the expectation of applying intermittent paint coatings given the similarity of the coating devices.

14. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milbourn et al et al US 5360629 in view of Watanabe et al US 5536313 and further in view of Kaido et al US 6284405.

Milbourn and Watanabe are cited for the same reasons previously discussed, which are incorporated herein. Use of dual 2-way valves to cause intermittent coating is not taught.

Kaido teaches yet another similar method of intermittently coating (web) base materials using a similar coater with coating material feed and return lines. In figure 3 and described on col. 18, 1-40 and elsewhere, two 2-way nozzles 26,28 are arranged on feed lines to the coater and return lines, respectively, such that intermittent coating occurs when material flowing through valve 26

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is stopped when the valve is closed and routed through return line 27 when valve 28 is opened, and vice-versa. While the coating process is directed to battery manufacture, it is the Examiner's position that since the references all are of the same field of endeavor (intermittent coating) using virtually identical coaters, the alternate valving and lines of Kaido to cause intermittent coating are analogous art, and one of ordinary skill would have looked to Kaido to ascertain alternative, simpler apparatus arrangements for intermittent coating. It is further the Examiner's position that the teachings of Kaido would have been suitable for any coating liquid known to be applied by such coaters, coating material being irrelevant to the arrangement of lines and valves, absent a clear and convincing showing of synergistic or unexpected results to the contrary.

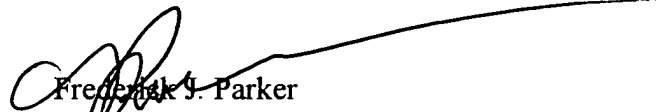
It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the intermittent coating of Milbourn using paint as taught by Watanabe and further incorporating the alternate valving means of Kaido because of the expectation of successfully intermittently applying paint coatings to the base material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 571/272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp